square, placed lozenge-wise. Although the design may be sometimes complicated, the ground-work will be formed by the square and the circle; and several diagrams were shewn in explanation of this view. Another peculiarity was adverted to: every geometrical compartment exhibits a complete picture; thus, a single window may contain from twenty to fifty perfect tableaux, chiefly scriptural, and sometimes presenting a complete and consecutive history. No perspective is attempted; and the background is usually deep blue, and sometimes red, black, or yellow. Letter inscriptions are to be met with, forming the base line, and surrounding the subject. The predominant colour, in effect, is a glowing purple or violet tone; blue and red glass being freely used, and the detail of the design, from the minuteness, being subordinate to colour. A great similarity was said to be observable between the works of this period, executed in this country, and those on the continent. Designs of windows in Canterbury and Lincoln cathedrals, and others at Bourges, Lyons, and Strasburg, were described and compared. He thence inferred, that the examples we possess were not executed in this country, or if so, that they were designed by Norman or French artists.

In the fourteenth century single figures and heraldry were more frequently introduced, other parts of the windows being filled by quarries, with foliage painted black, or partly yellow. A continuous pattern, with rosettes, pateræ, fleur-de-lis, &c., in full colours, and a surrounding border in rich colours, are peculiar to this period. Towards the end of this century, large canopied figures, occupying the whole light, are met with (as at Tewkesbury). These figures were treated in two distinct ways as regards the colouring, some having the whole background in rich colours, generally blue, and sometimes red, but no white glass appearing. In the other case, the backgrounds are clear glass and devoid of colour. The designs are in other respects similar. The reader supposed that the former were adopted in buildings having no painting on the walls, while the latter would, by admitting a considerable portion of pure light, be essential to the proper effect of mural decorations, tapestries, &c.

Pot-metals, it was said, were principally employed for all the coloured portions, and some curious accounts of expenses, &c., for preparing the tables on which the design was set out the full size, and for breaking, joining, and painting the glass, were quoted.

The paper will be resumed (and the remarks continued to the present time) at the next meeting of the society, on the 27th inst.

TERRA-COTTA.

Sir,—I beg to make a few remarks on the subject of terra-cotta, in reference to a quotation from a contemporary, which appeared in The Builder of September 5th, 1846, depreciating this valuable and efficient material; stating, that it is unfit for interior use, and that it is very expensive. Now, I beg to say that this is quite a mistake; for it is from thirty to fifty per cent. less expensive than stone, and more durable than any building stone when the proper ingredients are used in mixing it, and well burned; for the high degree of heat to which it is subjected causes it to become a semi-vitrified substance, and renders it quite impervious to the weather. Frost or damp has no effect upon it; consequently, it retains a sharpness and surface unimpaired by atmospheric changes. The fragments of terra-cotta in the British Museum, upwards of 2,000 years old, will fully bear out this remark.

Nearly a century has elapsed since the introduction of terra-cotta into this country; and many works executed in it may be now seen unimpaired and as perfect as when first executed; while the natural stone in and about the same building, will in many instances be found to have gone to decay.

It is a material capable of high finish and good relief, and admirably adapted for all kinds of architectural decorations. I here give a few names of places where it has been used:—the gateway, &c., of King's College, and various works at Cambridge; the frieze, capitals, trophies, figures, fountains, &c., Buckingham Palace; the caryatidæ, and the whole of the architectural decorations at St. Pancras Church; the frieze and capitals of St. Paul's school; the capitals and other enrichments of All Souls' Church, Langham place; the colossal statue of Britannia on the Town-hall, Liverpool; the pediment (subject, death of Nelson), statues, &c., Greenwich Hospital; the vases on the terrace—front of Somerset House; the statue of Britannia, 12 feet high, and all the figures, &c., on the Nelson Monument at Yarmouth, facing the sea, the *stone* of which is *rapidly* decaying; the statues, &c., at the Bank of England; the rich Gothic screen at St. George's Chapel, Windsor; and other works too numerous to mention.

As you are a professed and able advocate for the advantage of the arts in architecture and building, I trust you will give this subject space in your valuable journal, rather than encourage the depreciation of a material that is really good, useful, and economical.

I am, Sir, &c.,

Hoddesdon. James Pulham.

AWARDS OF OFFICIAL REFEREES.

SMALL DETACHED OFFICE BUILDINGS.

In the case of a closet building erected without notice at Forest Hill, Sydenham, in the Lewisham district, the district surveyor laid information against the builder for the following irregularities:—

"The south wall of said building, being carried over soil pit on old wood bearer (without counter arch, and the floor-joist-ends also *bearing* on such wood bearer); also portion of back wall returning from quoin at south side, built on dry brick steining of four inch thickness for foundation thereof. The roof parapet walls not being of sufficient height, schedule D part 2."

The referees' award was: "that inasmuch as the building in question comes within the modification made under the authority of the Commissioners of Works and Buildings, dated the 5th September, 1845,* relative to small office buildings detached from any other building and from ground not in the same occupation to an extent equal to the height thereof above the ground, and not exceeding eight feet in height and half a square in area,—the said building is not subject to the rules of the first-mentioned Metropolitan Buildings Act, cited in the said notice of irregularity."

Costs, with the exception of those attending a hearing on the premises, required by the builder, to be paid by the district surveyor.

THICKNESS OF INCLOSING WALLS.

With regard to four buildings of the first-rate, and four buildings of the extra first-rate, of the dwelling-house class, proposed to be built in Platt-street, St. Pancras, for the Association for Improving the Dwellings of the Industrious Classes,—the said buildings were to contain five stories, inclusive of the rooms in the roof thereof, and were in effect buildings of the third rate.

A requisition from Mr. Moffatt, on the part of the society, stated that,—"by schedule C, part 2, of the said Act, it is required that the external walls of the said first-rate buildings be of the thickness of 17½ inches in the three lowest stories, and thirteen inches in thickness, in the two topmost stories; and that the external walls of the said extra first-rate buildings be of the thickness of 21½ inches in the lowest story, and of the thickness of 17½ inches in the four remaining stories.

And whereas it is prescribed under the rule in schedule D, part 1, of the said Act, headed, "Thicknesses of inclosing walls to stories of buildings of whatever rate," if any such wall (i. e. an external wall) be abutted by cross or return walls within a length of 12 feet, and if not more than one aperture or recess occur within such length of 12 feet, and not more than one-half the quantity in length be taken out of such compartment of a wall by any such aperture or recess, then such external wall may be built of any thickness not less than 13 inches, notwithstanding the rate of such wall may require a greater thickness."

And whereas it is desired by the said W. B. Moffatt to build all such of the external walls, of all the said buildings as do not exceed 12 feet without cross walls, of the thickness of 13 inches, and, as the said W. B. Moffatt considers, in conformity with the said Act.

And whereas a difference of opinion has arisen between the said W. B. Moffatt and the district surveyor, touching the applicability of the last rule herein before quoted, the said surveyor being of opinion that the thicknesses prescribed for external walls in sched. C., part 2, are the minimum thickness for the rates of buildings to which they respectively apply, and that no departure may be made therefrom, other than such recesses in the said walls as the surveyor may authorize under the rule "construction and materials," in schedule D., part 2, of the said Act, and that the rule hereinbefore quoted applies only to any additional height of story beyond the usual height."

The referees were accordingly requested "to declare the true intent and meaning of the herein before quoted rule, and also whether the same may be applied, and does apply, to the external walls of the buildings in question, and to determine whether the said external walls may be built of the thickness of 13 inches only throughout, or in case the said W. B. Moffatt should think fit, of the thicknesses prescribed by schedule C., part 2, of the said Act for external walls of dwelling-houses of the third rate."

At the hearing, the following further question was also referred to them:—"Whether, inasmuch as there is to be no basement or under-ground story to the proposed buildings, and there is to be no kitchen fire place and range, it will be necessary to build the backs of the fire-places on the ground, or lowest story, of the thickness of 13 inches."

The referees awarded:—"That the rule in question (that is to say, the last of the rules in schedule D, part 1, headed, 'Thickness of inclosing walls to stories of buildings of whatever rate') does apply, and may be applied, to the external walls in every story of buildings of the first class, where such external walls are abutted by cross or return walls not less than 8½ inches thick, coursing and bonding therewith within a length of 12 feet; and that, if any external wall of the building in question be so abutted, and if not more than one aperture or recess occur within such length of 12 feet, and not more than one-half the quantity in length be taken out of such compartment of such wall, then such wall may be built of the thickness of 13 inches—so, nevertheless, that in the buildings of the central portion, the cross walls be carried up to the ceiling of the story next but one below the topmost story, at least 8½ inches in thickness; and so that in the wings (these buildings being of the extra first-rate) the cross walls be carried up to the ceiling of the story next below the topmost story, at the least 8½ inches in thickness. And as to the matter of the chimney backs, we do hereby further determine and award, that, notwithstanding the circumstances stated at the hearing of this matter, it will be contrary to the rules of the Metropolitan Buildings Act to build the back of any chimney in a party wall, in the lowest story, of the thickness of 8½ inches, or of any less thickness than 13 inches; and that it is not competent to the official referees to dispense with such rules."

Expenses to be paid by the society.

* See The Builder, Vol. III., p. 448.

Martin's Cement.—An injunction has been applied for by Mr. Stevens, in the Vice-Chancellor's Court, against Mr. Keating, to restrain him from infringing the original patent granted in 1834, for the manufacture of this cement. The specification of the patent now vested in the plaintiff claimed a right of manufacturing powdered chalk or gypsum, and a strong alkali, by neutralization with an acid, into a good imitation marble or cement, capable of receiving a high polish; and by another patent in 1840, alum, &c., were specified for mixing the materials in a solid state. The defendant in 1846, however, took out a patent for a cement, treating the mixture of gypsum with an acid and alkali as an old thing; claiming the use of borax instead of alum; and stating that he had obtained a contract for supplying the new Houses of Parliament with his new cement. The Vice-Chancellor held that the plaintiff had a *prima facie* right to the injunction; but that he must be put on terms to bring an action forthwith to try the validity of his patent.

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